

In re patent application of:	· ) )	I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the
Oleg Wasynczuk et al.	) Before the Examiner )	Commissioner for Patents, Washington, D.C. 20231 on August 23, 2001
Serial No. 09/884,528	) August 23, 2001	(Date of Deposit) Matthew R. Schantz
Filed June 19, 2001	) )	Name of Registered Representative
DISTRIBUTED SIMULATION	, )	Signature August 23, 2001 Date of Signature

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, DC 20231

Sir:

Pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the attention of the Examiner the following patents, publications and/or other information which are also listed on the attached PTO Form 1449A (modified). Copies of cited items are enclosed in accordance with 37 C.F.R. § 1.98. The below information has not been previously submitted in this application has not been heretofore cited by an Examiner, and relates generally to the state of the art in simulation, distributed computing, and messaging.

Patent No.	<b>Patentee</b>	<b>Issue Date</b>
4,456,994	Segarra	06/26/1984
4,506,324	Healy	03/19/1985

Page 1 of 5



Patent No.	<u>Patentee</u>	Issue Date
5,251,159	Rowson	10/05/1993
5,519,848	Wloka et al.	05/21/1996
5,640,504	Johnson, Jr.	06/17/1997
5,680,551	Martino, II	10/21/1997
5,715,184	Tyler et al.	02/03/1998
5,768,160	Kakegawa	06/16/1998
5,774,693	Hsu et al.	06/30/1998
5,784,612	Crane et al.	07/21/1998
5,793,968	Gregerson et al.	08/11/1998
5,794,005	Steinman	08/11/1998
5,801,938	Kalantery	09/01/1998
5,826,060	Santoline et al.	10/20/1998
5,845,116	Saito et al.	12/01/1998
5,850,345	Son	12/15/1998
5,862,366	Schmidt et al.	01/19/1999
5,881,267	Dearth et al.	03/19/1999
5,909,542	Paquette et al.	06/01/1999
5,910,903	Feinberg et al.	06/08/1999
5,983,265	Martino, II	11/09/1999
5,999,734	Willis et al.	12/07/1999
6,053,947	Parson	04/25/2000
6,106,297	Pollak et al.	08/22/2000
6,134,514	Liu et al.	10/17/2000
6,163,801	O'Donnell et al.	12/19/2000

- L. Birta, O. Abou-Rabia; *Parallel Block Predictor-corrector Methods for Ode's*; IEEE Trans. Computers, C-36:3 (March, 1987)
- O. Abou-Rabia, L.G. Birta, M. Chen; A Comparative Evaluation of the BPC and PPC Methods for the Parallel Solution of Ode's; Trans. Soc. For Computer Sim.; 6:4:pp 265-290
- M.L. Crow, M. Illie; The Parallel Implementation of the Waveform Relaxation Method for Transient Stability Simulations; IEEE Trans. Power Systems; 5:3:pp 922-932 (August, 1990)
- H. Mori, K. Takeda; Parallel Simulated Annealing for Power System Decomposition; IEEE Trans. Power Systems; 9:2:pp 785-795 (May, 1994)
- K. K. Fung, et al.; Concurrent Simulation of Decouple Power Electronics Circuits; Euro. Power Elec.; 18-23 (Sept. 1993)

Information Disclosure Statement DISTRIBUTED SIMULATION Serial No. 09/884,528 Inventor: Wasynczuk et al.

Attorney Docket: 16410-108:133150

Page 2 of 5



- L.G. Birta, M. Yang; Some Stepsize Adjustment Procedures for Parallel ODE Solvers; Trans. Soc. for Computer Sim., 12:4:pp 303-324
- N. huu Cong; A Parallel DIRK Method for Stiff Initial-value Problems; J. Comp. and Appl. Math., 54:pp 121-127 (1994)
- P.J. van der Houwen et al.; Parallel Iteration Across the Steps of High-Order Runge-Kutta Methods for Nonstiff Initial Value Problems; J. of Comp. and Appl. Math., 60:pp 309-329 (1995)
- W.A. van der Veen; Step-Parallel Algorithms for Stiff Initial Value Problems; Comp. in Math. Appl.; 30:11:pp 9-23 (1995)
- J.J.B. de Swart, J.G. Blom; Experiences with Sparce Matrix Solvers in Parallel ODE Software; Comp. In Math. Appl.; 31:9:pp43-55 (1996)
- I..M. Llorente, et al.; Some Aspects About the Stability of Scientific Applications on Parallel Architectures; Parallel Comp. 22:pp 1169-1195 (1996)
- P. Amodio, L. Brugnano; A Note on the Efficient Implementation of Implicit Methods for ODEs; J. of Comp. and Appl. Math.; 87:pp 1-9 (1997)
- L.G. Birta and L. Yang; Some  $P(EC)^mE$  Methods for Parallel Solution of ODEs; Math and Comp. in Sim.; 43:pp 171-182 (1997)
- I. Martin, F. Tirado; Relationships Between Efficiency and Execution Time of Full Multigrid Methods on Parallel Computers; IEEE Trans. Parallel and Dis. Sys.; 8:6:pp 562-573 (June, 1997)
- E. Messina, et al.; Parallel Interactive Linear Solvers for Multistep Runge-Kutta Methods; J. of Comp. and Appl. Math.; 85:pp 145-167 (1997)
- J. Huang, et al.; A Model and Design of a Fully Distributed Computing Environment for Virtual Reality; IEEE, pp 160-168 (March, 1997)
- Z. Yao, et al.; *Power System Simulation by an Improved WRM*; IEEE Int'l. Conf. On Control Appl.; pp 80-585 (October 5-7, 1997)
- S. Veseli; Multidimensional Integration in a Heterogeneous Network Environment; Comp. Physics Comm.; 108:pp 9-19 (1998)
  - N. Adbel-Jabbar, et al.; A Partially Decentralized State Observer and Its Parallel

Compute Partiementation; Ind. Eng. And Chem. Res.; 37:pp 2741-2760 (1998)

H. Vin; Supporting Next-Generation Distributed Applications; IEEE Project Reports, pp 78-83 (July-Sept., 1998)

E. deDoncker, et al.; *Large-Scale Parallel Numerical Integration*; J. of Comp. and Appl. Math. 112:pp 29-44 (1999)

P.J. van der Houwen and E. Messina; *Parallel Adams Methods*; J. of Comp. and Appl. Math.; 101:pp 153-165 (1999)

N. Abdel-Jabbar, et al.; A Multi-rate Parallel-modular Algorithm for Dynamic Process Simulation Using Distributed Memory Multicomputers; Comp. and Chem. Eng.; 23:pp 733-761 (1999)

M. Pruetim, et al.; An Environment to Develop Parallel Code for Solving Partial Differential Equation-based Problems; J. of Sys. Arch.; 45:pp 543-554 (1999)

T. Kato and T. Kataoka; Circuit Analysis by a New Multirate Method; Elec. Eng. In Japan; 126:4:pp 55-62 (1999)

L. Pollini and M. Innocenti; A Synthetic Environment for Dynamic Systems Control and Distributed Simulation; IEEE Con. Sys. Mag.; pp 49-61 (April, 2000)

H. Zhang; A Note on Windowing for the Waveform Relaxation

T. Sterling, et al.; Achieving a Balanced Low-cost Architecture for Mass Storage Management Through Multiple Fast Ethernet Channels on the Beowulf Parallel Workstation

T. Sterling, et al.; Beowulf: A Parallel Workstation for Scientific Computation

C. Reschke, et al.; A Design Study of Alternative Network Topologies for the Beowulf Parallel Workstation

T. Sterling, et al.; Communication Overhead for Space Science Applications on the Beowulf Parallel Workstation

This Statement is being submitted within three months of the filing date of the abovereferenced application, and prior to the mailing of any Office Action on the merits. It is thus believed that no fee is required for consideration of the submitted items. Should any fee be

AUG 2 7 2001

Attorney Docket: 16410-108:133150

Page 4 of 5

required, however, please charge such fee to Deposit Account No. 23-3030, but not to include any payment of issue fees.



Respectfully submitted,

Matthew R. Schantz

Reg. No. 40,800

Woodard, Emhardt, Naughton,

Moriarty & McNett

Bank One Center Tower

111 Monument Circle, Suite 3700

Indianapolis, Indiana 46204-5137

(317) 634-3456